

Title (en)

Method for characterising a product by topological spectral analysis

Title (de)

Charakterisierungsverfahren eines Produkts durch topologische Spektralanalyse

Title (fr)

PROCEDE DE CARACTERISATION D'UN PRODUIT PAR ANALYSE SPECTRALE TOPOLOGIQUE

Publication

**EP 2799840 A1 20141105 (FR)**

Application

**EP 13290098 A 20130430**

Priority

EP 13290098 A 20130430

Abstract (en)

[origin: CA2910850A1] The invention relates to a method for characterising a target product, comprising the following steps: forming a bank of spectral data comprising samples, having measured characteristics and spectra; performing a spectral analysis of the target product and comparing the spectrum obtained with the spectral data in the data bank; identifying the "near neighbour" points of the target product; and performing a topological calculation of the characteristic of the target product as a function of the corresponding characteristics of the near neighbour points, based on a weighting linked to the inverse of the distance between the target product and the near neighbour points.

Abstract (fr)

Procédé de caractérisation d'un produit cible comprenant les étapes suivantes: constitution d'une banque de données spectrales comprenant des échantillons, leurs spectres et leurs caractéristiques mesurées, analyse spectrale du produit cible et comparaison du spectre obtenu avec les données spectrales de la banque de données, identification des points "proches voisins" du produit cible et calcul par topologie de la caractéristique du produit cible en fonction des caractéristiques correspondantes des points proches voisins, basé sur une pondération liée à l'inverse de la distance entre le produit cible et les points proches voisins.

IPC 8 full level

**G01N 21/35** (2014.01)

CPC (source: EP US)

**G01N 21/359** (2013.01 - EP US); **G01N 2201/129** (2013.01 - EP US)

Citation (applicant)

- EP 0742900 A1 19961120 - BP CHEM INT LTD [GB], et al
- US 6897071 B2 20050524 - SONBUL YASER R [SA]
- WO 9207326 A1 19920430 - EXXON RESEARCH ENGINEERING CO [US]
- US 2010211329 A1 20100819 - FARQUHARSON STUART [US], et al

Citation (search report)

- [AD] EP 0742900 A1 19961120 - BP CHEM INT LTD [GB], et al
- [A] WO 2006126978 A1 20061130 - SAUDI ARABIAN OIL CO [SA], et al
- [AD] WO 9207326 A1 19920430 - EXXON RESEARCH ENGINEERING CO [US]

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CN114885180A; US9915606B2; US11703404B2; US11765403B1; EP2824443A1; WO2015004234A1

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Designated extension state (EPC)

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**EP 13290098 A 20130430**; CA 2910850 A 20140425; EP 14722618 A 20140425; EP 2014058495 W 20140425; MX 2015014815 A 20140425; US 20141488262 A 20140425